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ABSTRACT

The report summarizes results of a survey of musical performance abilities of Americans of various ages. During 1971 and 1972 a national assessment program was conducted to measure the musical abilities of nine-year-olds, 13-year-olds, 17-year-olds, and young adults from 26-35 years of age. Exercises were divided into five groups: singing familiar songs, repeating unfamiliar musical material, improvising, performing from notation, and performing a prepared piece. Results indicated that (1) in singing familiar songs, almost all individuals were able to maintain rhythmic patterns, but relatively few were accurate in pitch; (2) in repeating unfamiliar musical material, very few were able to repeat the melodic or harmonic patterns; and (3) in improvising melody, about half of the individuals from all four age groups attained acceptable scores. Very few individuals were able to accurately sight-read a line of music, either vocally or instrumentally. Although 25% of the population claimed to play an instrument, very few were able to give acceptable performances. A concluding section discusses performance levels of subgroups according to sex, race, parental education, region, and community type. (Author/AV)

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THE FIRST NATIONAL ASSESSMENT OF MUSICAL PERFORMANCE

REPORT 03-MU-01

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James A. Hazlett
Administrative Director

J. Stanley Ahmann
Staff Director

George H. Johnson
Associate Staff Director

This report was written by Frank W. Rivas of National Assessment's Utilization/Applications Department. It was edited for technical accuracy by Susan Oldefendt of the Research and Analysis Department.

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The First Music Assessment: An Overview will summarize results from all five areas of the Music assessment: performance, musical notation and terminology, instrumental and vocal media, music history and literature and attitudes toward music.

The Music Assessment: A Statistical Report will present complete data for all released Music exercises.

An interpretive report will attempt to identify the implications of the assessment for teachers of music. The report will be prepared with the cooperation of the Music Educators National Conference.

Music Objectives explains the objectives of music educators, as compiled by music professionals. The exercises in the first Music assessment were based on these objectives.

Music Cassette. To supplement the printed reports, National Assessment has produced a 60-minute cassette explaining scoring criteria for performance exercises and presenting musical stimuli used in the nonperformance exercises. The cassette is available for $2 from National Assessment at the address shown below.

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A Project of the Education Commission of the States
Suite 300
1860 Lincoln Street
Denver, Colorado 80203

Table of Contents

Foreword v

Chapter 1 Assessing Musical Performance 1

Chapter 2 Singing Familiar Songs 3

Chapter 3 Repeating Unfamiliar Musical Material 7

Chapter 4 Improvising 11

Chapter 5 Performing From Notation 15

Chapter 6 Performing a Prepared Piece 21

Chapter 7 Group Differences 25

Chapter 8 Conclusion 29

FOREWORD

During 1971 and 1972, National Assessment attempted to measure the level of musical achievement for Americans of various ages. In this booklet, we discuss the results of that research for one area of musical achievement-performance. The results for other areas will appear in further reports.

This volume presents an item-by-item account of the performance measurement. As such, it provides a middle ground in our reporting scheme. The statistical report provides greater detail: complete documentation for all the exercises and a complete statistical analysis. On the other hand, both an overview of the Music assessment and an interpretive report written with the cooperation of the Music Educators National Conference present less detailed, more general information. A list of publications that describe the Music assessment can be found on the inside of the front cover. A complete listing of National Assessment reports is printed on the inside back cover.

CHAPTER 1

ASSESSING MUSICAL PERFORMANCE

Musical performance has traditionally occupied an important position in the school music program. For the purpose of assessment, we have broadly defined performance to include not only the relatively polished concerts of the school band, orchestra and chorus, but also the less sophisticated singing of children in a classroom and the tapping of an adult as he listens to a popular song. Not only in Music, but in all the subject areas it covers, National Assessment has attempted to measure skills that are not employed solely in classrooms, but are used in daily life. The assessment then administers exercises to individuals at four age levels: 9-year-olds, 13-year-olds, 17-year-olds and young adults from 26 to 35 years of age.

The first Music assessment contained 15 performance exercises, some of which included several parts. The exercises have been divided into the following five groups: singing familiar songs, repeating unfamiliar musical material, improvising, performing from notation and performing a prepared piece. Each of these groups of exercises is discussed in one of the following chapters.

The performance exercises required special methods of administration and scoring. An exercise administrator read the instructions to each individual, played the stimulus on one tape recorder and then recorded the response on another tape recorder. Individuals were encouraged to record their voices before the administration actually began to minimize any anxiety they might feel about singing into a microphone.

After the responses were taped, a group of music professionals listened to samples of the responses and constructed scoring guidelines. These guidelines were intended to be comprehensive enough to encompass the wide variety in the quality of performances and objective enough to insure that a given performance would receive the same score from any scorer. Eleven graduate students in music then scored the thousands of responses.

This report includes a copy of the scoring criteria used to classify the responses for each of the released performance exercises. A supplementary cassette augments this information by including actual stimuli and sample responses from various scoring categories.

All exercises have a two-character designation. The first digit indicates the topic (all the exercises in this volume begin with a "1" for performance), while the second indicates both its position within the topic and whether the exercise is released. Position is alphabetical (1A comes before 1B); released exercises are referred to by capital letters, while unreleased exercises have the corresponding lower case designation. Since the exercises have the same designation in the statistical report, the reader can quickly turn to that report to find more detailed information about any of the exercises discussed in this volume.

CHAPTER 2

SINGING FAMILIAR SONGS

The Music objectives[1] stressed the importance of singing familiar songs. They suggested measuring the ability of individuals to sing a familiar song with others, to sing it alone and to maintain a part in a familiar round. Of the three released exercises that measure the ability of an individual to sing a familiar song, two used the song "America," and another, the round "Are You Sleeping?" Additional exercises that involve singing familiar songs have not been released so that they can be used in the second Music assessment to measure change over time.

Singing "America" With and Without Accompaniment (1A, 1B)

Both Exercise 1A and Exercise 1B involve singing "America." In 1A, individuals were asked to sing along with the recorded voices, while in 1B, they were asked to sing first with recorded voices, then alone. Nine-year-olds heard a children's choir singing in the key of D, while those in the older three age groups heard a mixed chorus singing in the key of C. It was hoped that these keys would be accessible to the majority of voices, especially since "America" has a range of only seven notes.

The graphs in Chapters 2 through 6 present the percentages of responses that were acceptable in rhythm, in pitch and in overall quality wherever these categories are applicable.

The bars representing overall quality show two values: the entire bars represent the percentages of acceptable responses;

Scoring Criteria for Exercises 1A and 1B, Singing "America" With and Without Accompaniment[2]

In Exercise 1A, individuals were asked to sing "America" along with a taped accompaniment. In Exercise 1B, they were asked to sing it first with accompaniment and then alone, but this report only presents the results for the second performance, when individuals sang without accompaniment.

Rhythm.

Acceptable
Unacceptable
The rhythm was considered to be incorrect if the singing could have been notated more accurately another way, although slight tempo changes were acceptable. To be acceptable in rhythm, a response could not have included more than three rhythmic errors.

Pitch.

Acceptable
Unacceptable
To be considered correct, a pitch must have been closer to the right pitch than to the next half step. However, changes in register were not considered to be errors. An acceptable response was one that included less than four pitch errors.

Overall Quality.

Good
Acceptable
Poor
An acceptable response was any response acceptable in both pitch and rhythm. Good responses not only met these criteria, but maintained the correct pitch in all but the first two notes and included no more than one rhythmic error.

[1] The exercises in the first Music assessment were developed to measure the extent to which young people are achieving the Music objectives compiled by music professionals in 1965. The objectives and their development are explained in the booklet *Music Objectives*, available through the National Assessment offices in Denver.

[2] Complete scoring criteria are presented in the statistical report. But in this report, there are several simplifications: we have eliminated the criteria for completeness, changed "not markedly deficient" and "markedly deficient" to "acceptable" and "unacceptable" and simplified the categories for overall quality.

the shaded segments represent the percentages of good responses. "Good" responses are a subset of those that were classified "acceptable."

When singing with the taped voices, about 93% of the individuals at all four age levels were able to maintain an acceptable rhythm. Even when singing without the taped accompaniment, almost the same percentage were able to maintain the rhythm, except at the 9-year-old level, where only about 80% were able to do so.

Nevertheless, many of the same individuals were not able to sing in tune. When individuals sang with taped accompaniment, the percentages of acceptable pitch[3] ranged from about 50% for the 9-year-olds to about 70% for the adults. When individuals sang without accompaniment, percentages were somewhat lower, ranging from about 35% for the 9-year-olds to about 65% for the adults.

Pitch proved to be a far better discriminator of the ability to sing "America" than was rhythm. Almost all responses which were acceptable in pitch were also acceptable in rhythm. Thus the percentages of responses that were classified as acceptable in overall quality[4] are almost the same as the percentages of acceptable pitch.

However, to be classified as good, responses had to meet more stringent criteria. Only about 20% of the 9-year-olds, 30% of the 13-year-olds and 40% of the 17-year-olds and adults gave a solo performance of "America" that was classified as good.

EXHIBIT 1
Percentages of Success for Exercise 1A, Singing "America" With Accompaniment

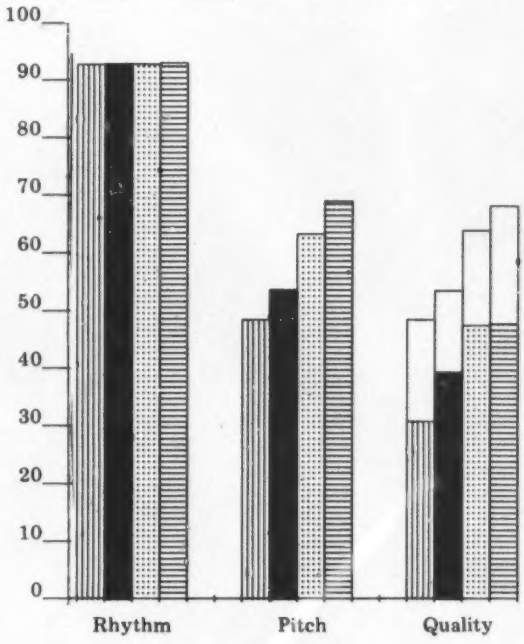
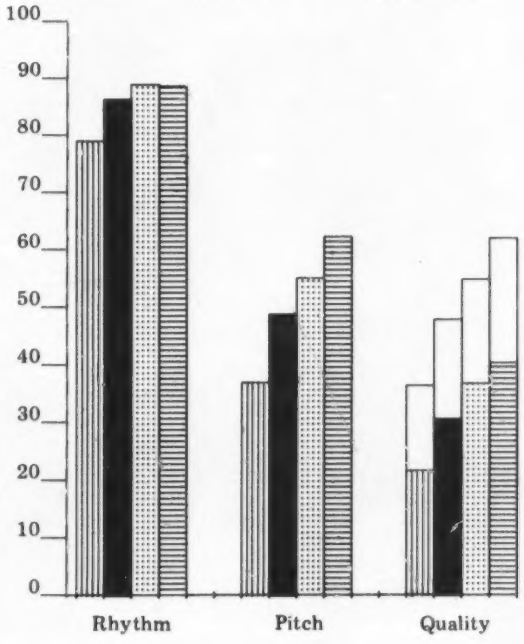


EXHIBIT 2
Percentages of Success for Exercise 1B, Singing "America" Without Accompaniment



[3] This report refers to levels of pitch and rhythm performance as "acceptable" and "unacceptable," even though the complete scoring criteria, reprinted in the statistical report, refer to pitch and rhythm as "not markedly deficient" or "markedly deficient."

[4] The columns labeled quality in the graphs refer to overall quality, not tone quality.

Singing Rounds (1C)

Exercise 1C was administered only to 9-year-olds. It required children to sing one part in the round "Are You Sleeping?" A corresponding unreleased exercise, Exercise 1c, required individuals from the older three age groups to sing a part in a similar round. The subsequent paragraphs discuss the results of both the released and unreleased exercises involving rounds, although, strictly speaking, the two exercises are not directly comparable.

Scoring Criteria for Exercises 1C and 1c: Singing Two Rounds

Individuals were asked to sing the rounds twice; the better of the two performances was scored.

Rhythm.

Acceptable
Unacceptable
The rhythm was considered to be incorrect if the singing could have been notated more accurately another way. An acceptable response must not have included more than six rhythmic errors.

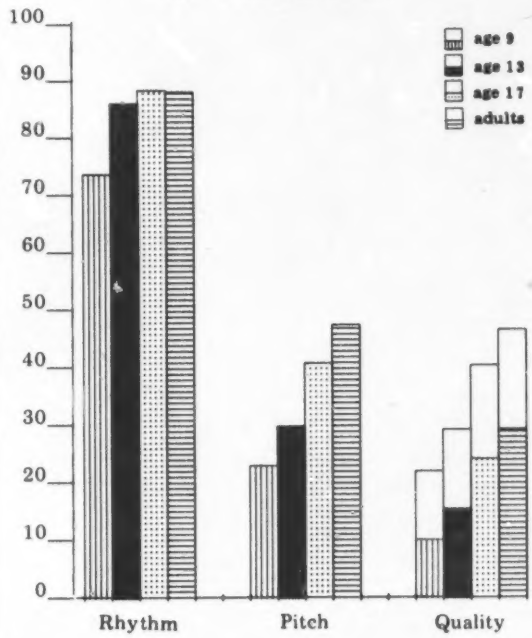
Pitch.

Acceptable
Unacceptable
To be considered correct, a pitch must have been closer to the right pitch than to the next half-step; changes in register were not considered to be errors. An acceptable response must have maintained the correct pitch in all but six notes.

Overall Quality.

Good
Acceptable
Poor
An acceptable response must have been acceptable in both pitch and rhythm. Good responses not only met these criteria, but contained no more than one pitch and one rhythmic error.

EXHIBIT 3
Percentages of Success for Exercises 1C and 1c, Singing "Are You Sleeping?" and a Similar Unreleased Round



There are notable similarities in response patterns between the rounds and the "America" exercises. Individuals at all age levels were much more capable of maintaining the rhythm than maintaining the pitch. And, as in the "America" exercises, adults demonstrated a considerable improvement over the 17-year-old percentage, 17-year-olds demonstrated an improvement over the 13-year-old percentage and so on.

However, the percentages for Exercises 1C and 1c were significantly lower than those for the "America" exercises. Although 70% of the adults gave an acceptable performance of "America," only about 45% were able to give an acceptable performance of the round.

Since rounds are by their nature more difficult to perform than monophonic music, the lower percentages in Exercises 1C and 1c are understandable. But one similarity holds for all the exercises that involve singing familiar songs: almost all individuals were able to maintain rhythmic patterns, while relatively few were accurate in pitch.

CHAPTER 3

REPEATING UNFAMILIAR MUSICAL MATERIAL

All three exercises that measure an individual's ability to repeat unfamiliar musical material have been released. The first involves repeating a rhythmic line; the second, a melodic line; the third, a harmonic line. Although the exercises measure a desired performance ability, especially in the elementary grades, the exercises were originally designed to find out whether individuals perceived the various features of rhythmic, melodic and harmonic lines.

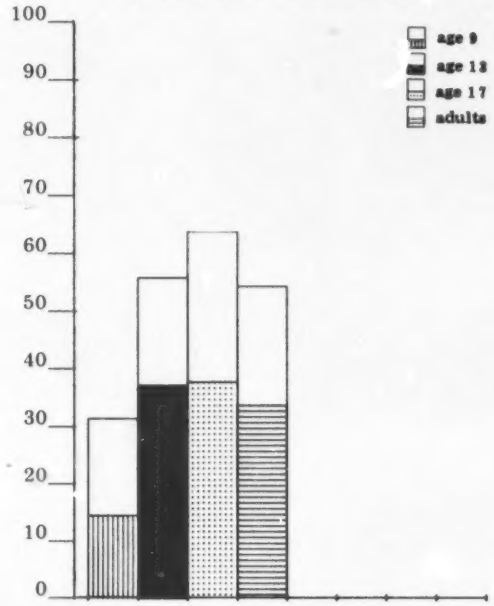
Repeating a Rhythmic Pattern (1D)

In Exercise 1D, individuals from all four age levels were asked to repeat the following pattern (m.m. 100):

Scoring Criteria for Exercise 1D, Repeating a Rhythmic Pattern

Good	A good response had to be complete with all notes correct. The pattern had to be continuous, without hesitation, and there must have been no more than a 10% change in tempo from that of the stimulus.
Acceptable	An acceptable response allowed for one error (a hesitation between the two phrases would count as an error) and a 30% tempo change.
Poor	

EXHIBIT 4
Percentages of Success for Exercise 1D, Repeating a Rhythmic Pattern



The phrase was played on claves and reproduced on a tape recorder; respondents did not actually see the notation. Although many might expect the ability to repeat such a rhythm to be an almost unconscious, innate ability, many individuals at all four age levels were not able to complete the exercise acceptably. More than half of those from the older three age groups and about 30% of the 9-year-olds were able to do so. An acceptable response, it should be noted, allowed for one error, and the failure to repeat the phrase was considered as only one error. Many of those who attained adequate scores failed to repeat the phrase, while those whose performances were scored poor generally rearranged the pattern of eighth and quarter notes.

Repeating a Melodic Pattern (1E)

Even fewer individuals were able to repeat the melodic pattern presented in Exercise 1E (m.m. 152):

Scoring Criteria for Exercise 1E: Repeating a Melodic Pattern

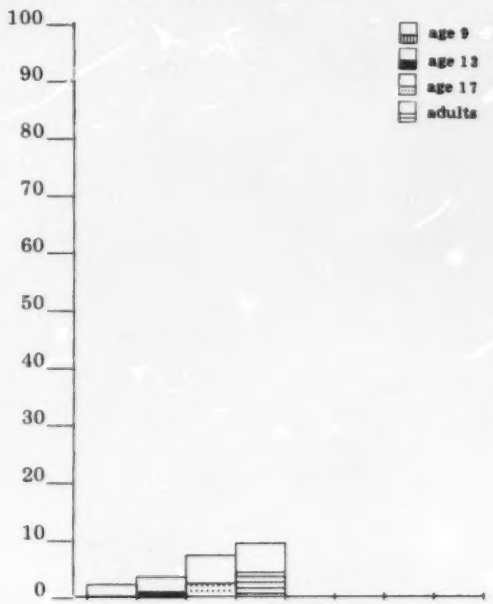
Three small changes in the melody were not considered as errors: articulating the second beat of the first measure, tying the first two notes of the third measure and not holding the last note. However, transposing the key and distorting the meter were each considered as one error. Generally no more than one error per beat was counted, but when a rhythmic error resulted in distortion of the meter, two errors were counted.

Good — An acceptable response must have contained no errors in the accented beats, but could have contained two errors elsewhere. The tempo could not have deviated by more than 10%.

Acceptable — To be scored not only acceptable, but good, a response must have contained no errors on accented (first) beats and no more than one error elsewhere. The tempo could not have deviated from that of the stimulus by more than 5%.

Poor

EXHIBIT 5
Percentages of Success for Exercise 1E, Repeating a Melodic Pattern



No more than 10% of the individuals in any age group—approximately 2% of the 9-year-olds, 4% of the 13-year-olds, 7% of the 17-year-olds and 9% of the adults—were able to repeat the four-measure phrase acceptably. Since the scoring criteria for this exercise do not seem unduly stringent, one is forced to conclude that repeating a melodic line is much more difficult for most people than repeating a rhythmic pattern.

Repeating a Harmonic Pattern (1F)

In Exercise 1F, individuals were asked to repeat the following harmonic line. They first heard both lines sung together, then heard the top line sung by itself and were finally asked to sing the top line while the recorded voices sang both parts (m.m. 120):

Because of the difficulty of repeating a harmonic line, this exercise was administered only to 13-year-olds, 17-year-olds and adults. As Exhibit 6 reveals, percentages of acceptable performances ranged from about 8% for the 13-year-olds and adults to about 15% for the 17-year-olds.

Scoring Criteria for Exercise 1F, Repeating a Harmonic Pattern

Rhythm.

Acceptable
Unacceptable
The rhythm was considered to be incorrect if the singing could be notated more accurately another way. To be acceptable in rhythm, a response must have contained no more than three rhythmic errors.

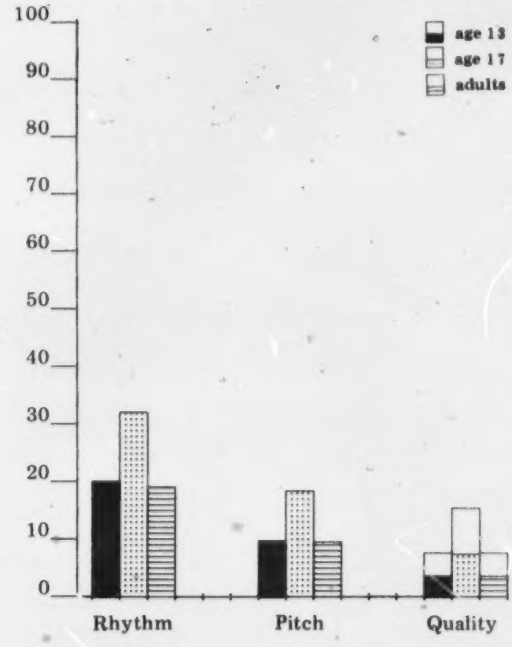
Pitch.

Acceptable
Unacceptable
To have been considered correct, a pitch must have been closer to the right pitch than to the next half step; changes in register were not considered to be errors. An acceptable response could not have included more than four errors at the beginning or three errors elsewhere in the tune.

Overall Quality.

Good
Acceptable
Poor
An acceptable response must have been acceptable in both pitch and rhythm. A good response must have maintained correct pitches except in the first three notes and must have contained no more than one rhythmic error.

EXHIBIT 6
Percentages of Success for Exercise 1F, Repeating Harmonic Patterns



Even the few exercises discussed so far in this report provide some basis for making tentative generalizations about performance ability. It does seem, for example, that rhythm is the element of music most people can manipulate easily. When singing songs and rounds with which they were already familiar, almost all the individuals maintained rhythmic accuracy, although many could not maintain accuracy in pitch. Similarly, when repeating unfamiliar musical material, about half were able to repeat the rhythmic pattern, while very few were able to repeat the melodic or harmonic patterns.

It does appear, too, that many individuals are able to repeat a musical selection only after becoming familiar with it. All the scores on the exercises that involve singing familiar songs are higher than the scores on the exercises that involve unfamiliar musical material, where phrases are heard just once or twice before individuals are asked to repeat them, even though none of the unfamiliar phrases was longer than five measures.

Generalizations such as these do provide a framework for evaluating the performance abilities of most Americans. We encourage our readers to use these generalizations and to formulate others while reading the subsequent chapters. Only after a set of such generalizations exists can we begin to interpret the results by asking such questions as the following: What skills have most Americans mastered and what skills have they not mastered? To what extent is mastery or non-mastery a function of the educational system? Do we want to shift our priorities in music education? The assessment cannot answer such questions, but it can provide the information necessary for an informed discussion of these problems.

CHAPTER 4

IMPROVISING

Improvising involves an act of creation. Perhaps the three improvisation exercises discussed in this chapter involve a more active participation in the arts than do any of the other exercises described in this report. Improvisation, of course, cannot take place in a vacuum; it requires certain skills, a feel for the medium, in addition to an abandonment of musical inhibitions.

Needless to say, there was no single desired response for these exercises. While it is relatively easy to determine whether an individual has repeated a particular pattern or sung a particular song, it is more difficult to determine whether he has successfully and artistically improvised. Consequently, the scoring criteria for these exercises allow for a broader range of responses, but are considerably more technical. As in the previous chapter, we have one rhythmic, one melodic and one harmonic exercise.

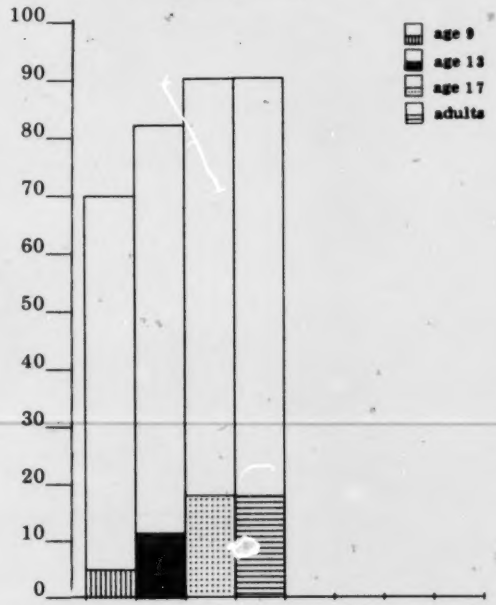
Improvising Rhythm (1G)

In Exercise 1G, individuals from all four age levels were asked to improvise a rhythmic accompaniment to a relaxed, syncopated jazz selection of moderate tempo (m.m. 138). The selection, performed by piano and voices, consisted of 24 measures in 4/4 meter. When the exercise was administered to school children, the children were given a pair of bongos on which to perform; however, in the adult assessment, an attache case was provided instead. Most individuals were able to maintain a rhythmic accompaniment. About 90% of the 17-year-olds and adults maintained an acceptable accompaniment (even 70% of the 9-year-olds did), but considerably fewer individuals added embellishments that contributed to a good performance. Less than 20% of any age group did so.

Scoring Criteria for Exercise 1G, Improvising Rhythm

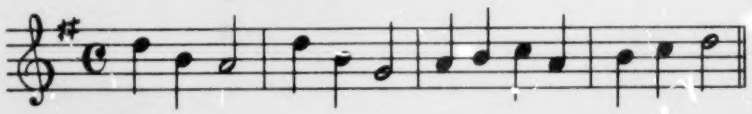
Good *Acceptable* *Poor*	An acceptable response must have maintained the basic beat and must have been coordinated with the stimulus tempo by the beginning of the fifth measure. Good responses not only maintained the beat, but added several embellishments which contributed to the performance.

EXHIBIT 7
Percentages of Success for Exercise 1G, Improvising Rhythm



Improvising Melody (1H)

In Exercise 1H, individuals were asked to listen to the following phrase and then improvise a concluding phrase (m.m. 152):



An acceptable phrase was one which complemented the first phrase and ended with a cadence. About half of the individuals from all four age groups attained acceptable scores. Percentages of good responses were lower, ranging from about 20% for 9-year-olds to about 40% for adults, but criteria for good responses were far more stringent.

Scoring Criteria for Exercise 1H, Improvising Melody

Good
Acceptable
Poor

Three basic criteria separated the acceptable responses from the poor responses. To be considered acceptable, a response must have begun within two measures of the end of the stimulus, must not have deviated in tempo by more than 10% and must not have contained more than two unidentifiable pitches (pitches a little sharp or flat were acceptable).

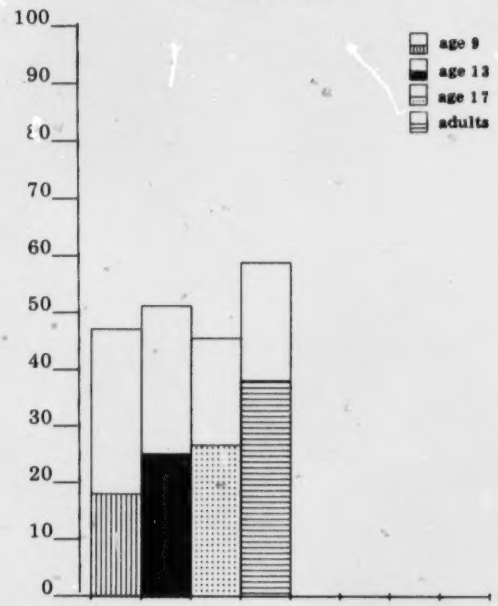
Three other criteria separate good responses from other acceptable responses:

A good response must have lasted at least two measures, while other acceptable responses could have been as short as one measure.

Good responses maintained the key, while other acceptable responses could establish and retain a new tonal center in a closely related key (dominant, subdominant, relative minor or parallel minor). Temporary dominant modulation with return to the tonic was not considered to be a change of key.

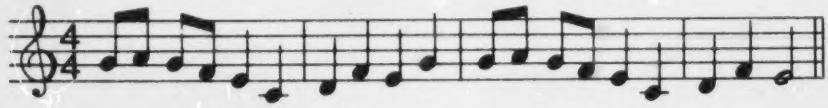
A good response must have ended on the first, third or fifth degree of the tonic chord with a definite feeling of finish, while other acceptable responses could end on any note in the same key in a clear cadence or half-cadence.

EXHIBIT 8
Percentages of Success for Exercise 1H, Improvising Melody



Improvising Harmony (1I)

In Exercise 1I, 13-year-olds, 17-year-olds and adults were asked to listen to the following line of music and then improvise a harmonic accompaniment to it (m.m. 120):

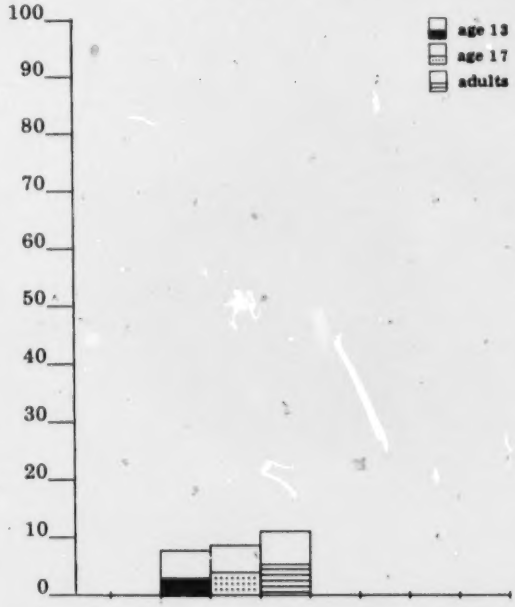


Most individuals tried to improvise a harmonic accompaniment, but some did not: about 20% of the 13 and 17-year-olds and about 10% of the adults did not respond at all. Only 1 person in 10, at all age levels, attained an acceptable score.

Scoring Criteria for Exercise 1I, Improvising Harmony

Good *Acceptable* *Poor*	An acceptable response must have met several requirements. It could not lose the tonality, and the cadence must have been in the key. At least 50% of the beats must have been harmonized with thirds or sixths (with the exception of pedal points using I or V^7) unless the response has the character of an independent melody, in which case only 25% of the beats need be harmonized with thirds or sixths. No more than 50% of the notes could have been in unison or at the octave, and no more than 33% could have been harmonized in seconds or sevenths. The requirements for a good response were more stringent. At least 75% of the beats must have been harmonized in thirds or sixths (with the exception of pedal points using I or V^7), even if the response has the character of an independent melody. At least 50% of the notes should have been harmonized in thirds or sixths. The lines could not have included more than one measure of parallel fourths or fifths, and one of the two final notes must not have been in unison or at the octave.

EXHIBIT 9
Percentages of Success for Exercise 1I, Improvising Harmony



It appears, then, that the generalizations developed in the last chapter are further verified by the results of the exercises in this chapter. Rhythm still seems to be the most comfortable element of music for most people; melody and harmony follow. Another generalization also seems apparent: that improvising is no more difficult than repeating an unfamiliar line. Even when individuals cannot remember the exact contour of a musical line, it may be that they often retain enough of the feel for that line to improvise upon it.

CHAPTER 5

PERFORMING FROM NOTATION

Four sight-reading exercises were administered to 9-year-olds, 13-year-olds, 17-year-olds and adults. Only two of these exercises have been released, but all four contain not more than two or three different notes in a simple arrangement not exceeding six measures. Individuals were asked to sing these lines of music, starting on any tone they wished, and singing numbers, letters, or la, la, la—whichever was easiest for them.

Exercise 1L was also administered to all four age levels, but only to those respondents who claimed to play an instrument. Individuals were asked to play a somewhat more difficult line on the instrument of their choice.

In Exercise 1M, 17-year-olds and adults were asked to sing a line of music comparable to the one performed instrumentally in Exercise 1L.

Sight-Singing (1J, 1K)

In Exercise 1J, individuals were presented with one of the following lines of music. Girls were asked to sing the first line and boys, the second, but both are the same tune in different octaves:

Exercise 1K presented similar lines, but with three different pitches:

Scoring Criteria for Exercises 1J and 1K, Sight-Singing

Rhythm.

Acceptable
Unacceptable
The rhythm was considered to be incorrect if the singing could have been more accurately notated another way. Since no tempo was established, values for notes were only relative to one another. Stopping for a breath did not count as an error as long as the next note was attacked at the right time. No more than three rhythm errors were allowed in an acceptable performance. One exception, however, was that consistently halved quarter notes with no other errors were also considered acceptable.

Pitch.

Acceptable
Unacceptable
A pitch was considered to be incorrect if it was closer to the next half step than to the right pitch. Three pitch errors and one change of key were allowed in an acceptable performance. However, if one of the major second intervals were maintained consistently, the other interval may have been sung at a minor second interval without causing the response to be scored unacceptable.

Overall Quality.

Good
Acceptable
Poor
A good performance could not have included more than one error of any kind, while an acceptable performance was any rendition acceptable in both pitch and rhythm.

Few individuals from any age level were able to complete the sight-reading exercises successfully. Exercises 1J and 1K, which presented two short phrases of only two or three different notes, elicited the highest percentages of acceptable responses. But even on these, no group attained a percentage of success greater than 12%.

In all the previous exercises presented in this report, rhythm scores were significantly higher than pitch scores. However, in Exercise 1J, which required sight-reading a passage of 3/4 meter, this relationship was reversed: Percentages for rhythm were lower than those for pitch. In Exercise 1K, which involves a phrase in 4/4 meter, rhythm and pitch scores were about the same.

EXHIBIT 10
Percentages of Success for Exercise 1J, the First Sight-Singing Exercise

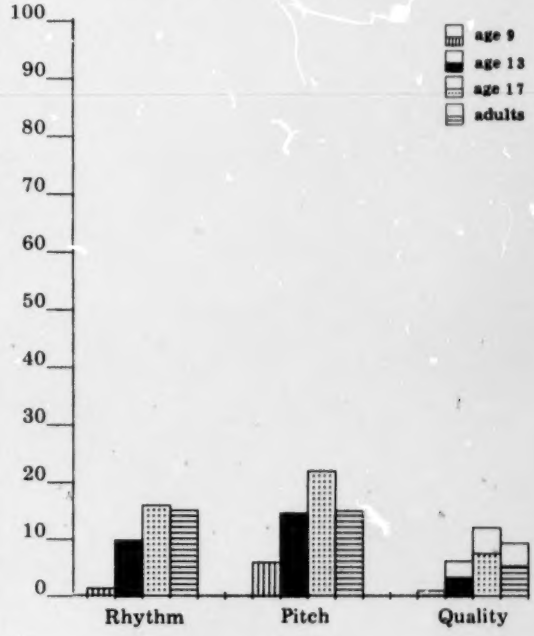
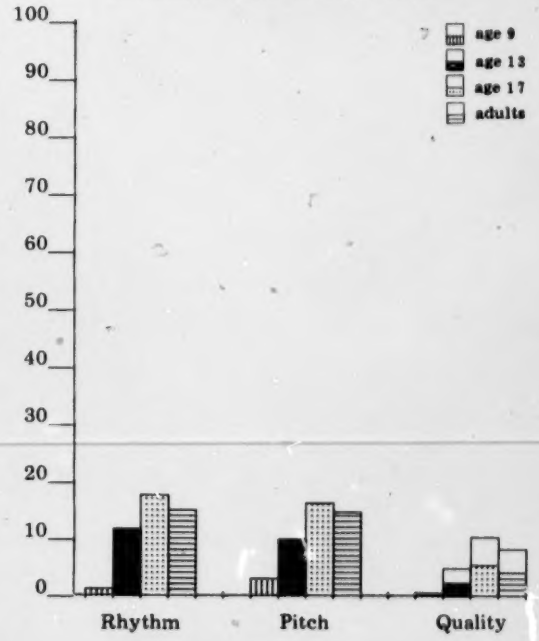


EXHIBIT 11
Percentages of Success for Exercise 1K, the Second Sight-Singing Exercise



There were other differences in the results of the two exercises. Exercise 1J contained only two different pitches, and about 22% of the 17-year-olds were acceptable in pitch; however, on Exercise 1K, which contained three different notes, only about 16% of the 17-year-olds were acceptable in pitch.

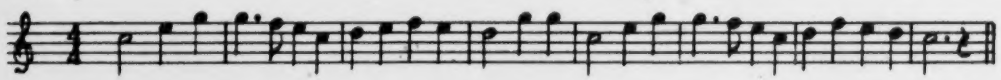
Instrumental and Vocal Sight-Reading (1L, 1M)

In both Exercises 1L and 1M, individuals were asked to sight-read lines of music somewhat more complex than those for the elementary sight-reading exercises. In Exercise 1L, they were assigned lines of music on the basis of the following table:

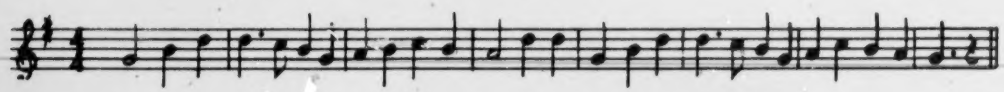
Instrument	Line of Music	Instrument	Line of Music	Instrument	Line of Music
Accordion	10	English Horn	2	Piano	10
Alto Horn	4	Euphonium	3 or 6	Piccolo	1
Banjo	11	Flugelhorn	2	Recorder	1 or 2
Baritone (Horn)	3 or 6	Flute	1		
Bass (Horn)	8	French Horn	2	Saxophone (Any member of family)	2
Bass Trombone	8			Sousaphone	8
Bassoon	8	Guitar, Acoustic (Nonelectric)	11	String Bass	8
Bugle	12	Guitar, Electric	11		
Cello	7			Tonette	3
Clarinet (Any member of family)	2	Harmonica	1, 2 or 3	Trombone	8
Concertina	10	Harp	10	Trumpet	2
Contra-bassoon	8			Tuba	8
Cornet	2	Mandolin	4		
		Mellophone	4	Ukulele	11
Double (String) Bass	8	Oboe	2	Viola	5
Drums (All percussion)	9	Organ	10	Violin	4
Dulcimer	11	Percussion, all	9	Zither	11

The lines of music, all transpositions of one another, follow:

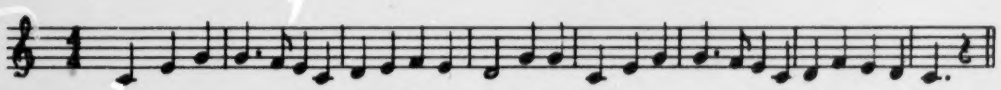
1.



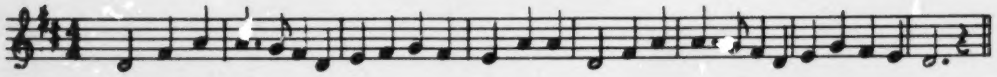
2.



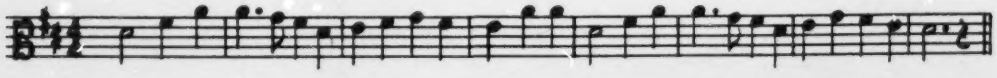
3.



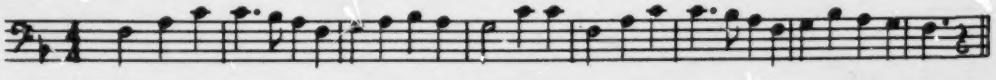
4.



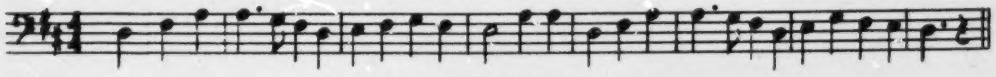
5.



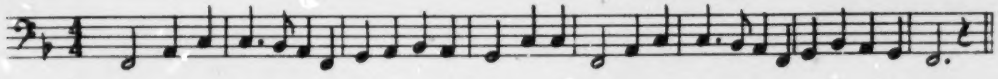
6.



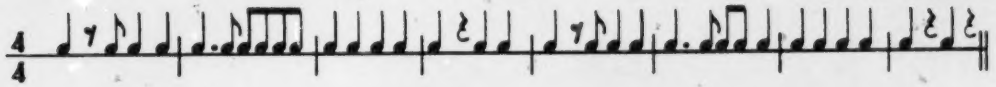
7.

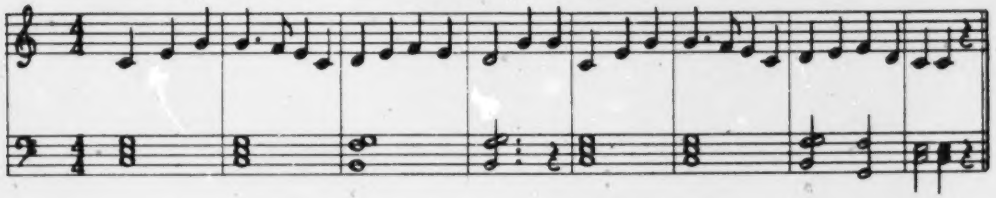


8.

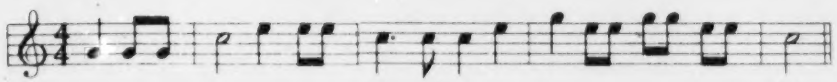


9.





C C Am Am C C G7 G7 C C



Other transpositions were used in Exercise 1M. Individuals were assigned one of the following lines on the basis of whether they classified themselves as soprano, alto, tenor or bass. Other voice types and those uncertain of their voices were allowed to choose any line:

Scoring Criteria for Exercises 1L and 1M, Instrumental and Vocal Sight-Reading

Rhythm.

Acceptable
Unacceptable
The rhythm was considered to be incorrect if the performance could have been notated more accurately another way. Three rhythmic errors were permitted in an acceptable performance.

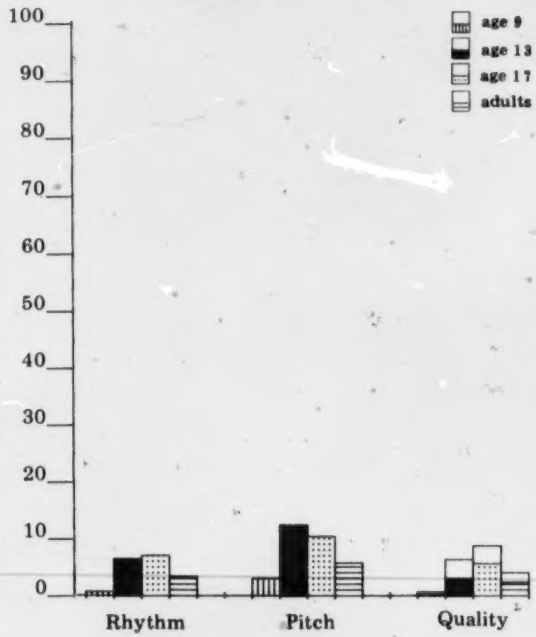
Pitch.

Acceptable
Unacceptable
Starting pitches were at the discretion of the vocalist: subsequent pitches were relative and must have been closer to the right pitch than to the next half step. To be acceptable a response must have included no more than three pitch errors. One change of key or pitch level was also permitted in an acceptable performance.

Overall Quality.

Good
Acceptable
Poor
Only one error of any kind was permitted in a good performance, and any performance acceptable in both pitch and rhythm was considered acceptable.

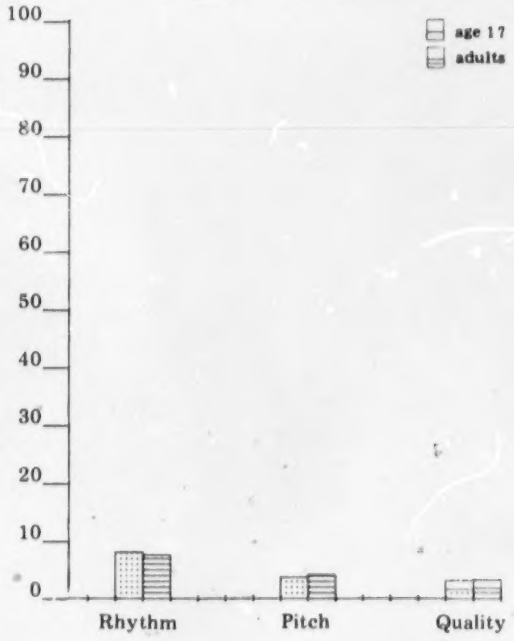
EXHIBIT 12
Percentages of Success for Exercise 1L, Instrumental Sight-Reading



Exercise 1L, which required instrumental sight-reading, was administered only to those respondents who claimed to play instruments. Fewer than 10% of the individuals at any age level attained an acceptable score on this.[5] Of the 9-year-olds who played an instrument, less than 6% gave an acceptable performance. But for the older three age levels, percentages were significantly higher. Thirty-two percent of the 13-year-old instrumentalists, 67% of the 17-year-old instrumentalists and 50% of the adult instrumentalists sight-read acceptably. Many instrumentalists were able to reproduce the proper pitches, but could not maintain the rhythm.

Fewer still were able to complete successfully Exercise 1M, which required individuals at the upper two age levels to sing a more complex line of music. Only about 3% of the 17-year-olds and adults were able to do so. Unlike the instrumental performers, many vocalists were able to maintain the proper rhythm, but had difficulty finding the proper pitches.

EXHIBIT 13
Percentages of Success for Exercise 1M, Vocal Sight-Reading



The data clearly indicate that fewer individuals are able to sight-read than can sing familiar songs, repeat unfamiliar musical material or improvise. Sight-reading seems to require a type of technical proficiency that is generally not well-developed in nonmusicians.

[5] Exhibit 12 displays percentages of success for the entire population. Percentages for the subpopulation of those who claimed to play instruments are not displayed but are discussed in the text.

CHAPTER 6

PERFORMING A PREPARED PIECE

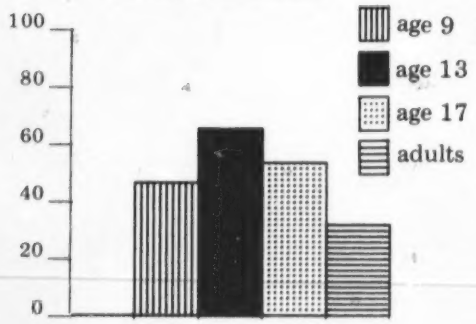
In many ways, the exercises that involve performing a prepared piece are comparable to the improvisation exercises. These exercises, too, were less structured and allowed for a large amount of creativity. And like the improvisation exercises, these exercises were very difficult to score.

The prepared piece exercises were administered as part of Exercises 1L and 1M. In the prepared piece portion, individuals were first asked whether they played any instruments and what kinds of instruments they played. If an individual played an instrument, he was asked to bring it to school on the following day so that he could play a selection for us. However, when assessment packages were administered in the home, we asked that the instrument be played on the first day. Seventeen-year-olds and adults were also asked to sing a prepared piece on the same day.

In addition to the information about how well individuals perform selections of their own choice, these exercises also provide us with census-like data about how many individuals play instruments of given types. The first part of this chapter will be devoted to a discussion of the survey information.

Altogether, about 25% of the 9-year-olds, 35% of the 13-year-olds, 25% of the 17-year-olds and 15% of the adults claimed to play an instrument of some type. Several individuals indicated playing more than one instrument. Eleven percent of the 13 and 17-year-olds played more than one, and almost as many adults did. Many played the standard band and orchestral instruments; keyboard instruments were more popular than any individual family of band or orchestral instrument and were increasingly popular with older individuals; and folk instruments were listed by a large number of the respondents. Folk instruments included the guitar, ukulele, banjo, mandolin, lute, concertina, autoharp, recorder, Jew's harp, zither, harmonica, dulcimer, sweet potato and ocarina.

EXHIBIT 14
Percentages of Individuals Who Claim to Play an Instrument



Individuals were also asked how long they had played their various instruments. Except for 9-year-olds, the majority of people at all age levels who played any instrument had played for more than one year, with a sizable portion having played for more than three years. About half of the 17-year-olds who play an instrument and almost all of the adults who play an instrument acknowledged playing for more than three years.

EXHIBIT 15

Percentages of Individuals Who Play Various Instrument Types

(The percentages refer only to those who claimed to play instruments.
For example, 7% *of the 9-year-olds who play instruments*
play brass, but only about 25% of the 9-year-olds play any instrument.)

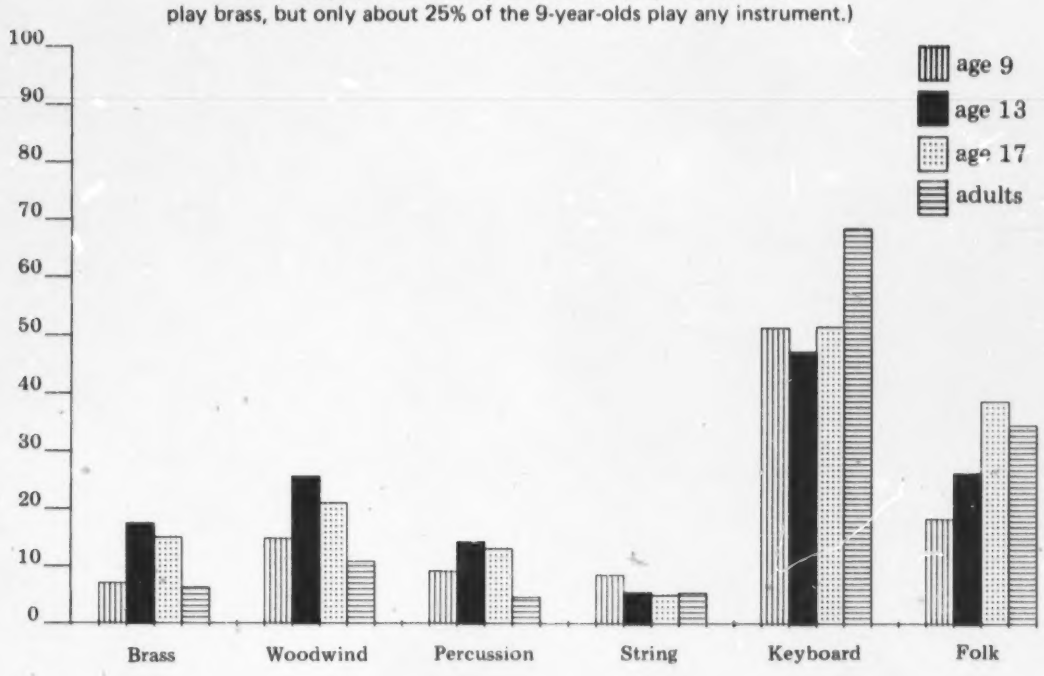


EXHIBIT 16

Percentages in Each Scoring Category for Exercise 1L, Playing a Prepared Piece

	9-year-olds			13-year-olds			17-year-olds			Adults		
	Easy	Medium	Difficult	Easy	Medium	Difficult	Easy	Medium	Difficult	Easy	Medium	Difficult
Good	1	0	0	1	1	0	0	1	0	1	1	0
Acceptable	7	0	0	10	3	0	6	4	0	3	2	0
Poor	5	0	0	5	1	0	2	1	0	2	0	0

Scoring Criteria for Exercises 1L and 1M, Playing and Singing a Prepared Piece

Difficulty.

Difficult
Medium
Easy

The *Selective Music Lists* prepared by the National Interscholastic Music Activities Commission of the Music Educators National Conference were used as guides in scoring the difficulty of pieces.

Quality.

Good
Acceptable
Poor

Because of the diversity of prepared pieces, it was impossible to construct quality categories with rigid definitions. An adequate performance was one that followed the score closely, did not include more than a few errors, maintained the tonal, [illegible] monic and rhythmic integrity. A good performance was one that was more than a mechanistic reproduction of the score; it must have been interpretive. The accompanying record offers examples from each category.

EXHIBIT 17
Percentages in Each Scoring Category for Exercise 1M, Singing a Prepared Piece

	17-year-olds			Adults		
	Easy	Medium	Difficult	Easy	Medium	Difficult
Good	2	1	0	4	1	0
Acceptable	20	3	0	36	3	0
Poor	19	1	0	28	1	0

Prepared pieces were scored along two dimensions: the difficulty of the selection and the quality of the performance. Each dimension included three categories: a selection was easy, medium or difficult, while a performance was poor, acceptable or good. Thus, scores for the prepared pieces can be placed in a 3 x 3 matrix, as in Exhibit 16.

Fifteen percent of the 9-year-olds, 20% of the 13-year-olds, 15% of the 17-year-olds and 10% of the adults actually played their instruments during the assessment. Of the 9-year-olds who played for us, almost all chose easy pieces, and more than half gave acceptable performances. Of the 13-year-olds, about three quarters chose easy pieces, and most performances were acceptable. About half of the 17-year-olds chose to play easy pieces; about half chose pieces of medium difficulty. Approximately 80% of the group gave acceptable performances. Most adults attempted easy pieces, and approximately 70% of the group gave acceptable performances.

In all, while about 25% of the individuals in all age groups professed to play an instrument, only about 10% to 20% at various ages actually attempted a performance. Many chose to play easy pieces, but almost two thirds of those who performed gave an acceptable instrumental performance.

When individuals were asked to sing a selection of their own choice, almost half of the 17-year-olds and three quarters of the adults decided to do so. As with the instrumental selections, vocal selections were scored on a 3 x 3 matrix. Of those who sang, almost all chose very simple selections, and about 60% of those who sang performed acceptably (Exhibit 17). Although many of the 17-year-olds and adults could not name their voice type, they could perform with some degree of ability.

CHAPTER 7

GROUP DIFFERENCES

In addition to obtaining national percentages for the various exercises in the Music packages, National Assessment obtains results for groups in various geographical regions, of different sexes, of different races, with differing amounts of parental education and from different types of communities. In this chapter, we will discuss how individuals from these various subpopulations compare to the nation as a whole on the various performance exercises.

Sex

Females of all ages generally attained higher percentages of acceptable scores on the performance items than did their male counterparts. The differences, however, were not extremely large; on the average, less than 5 or 6 percentage points separated the male and female percentages for 9-year-olds, 13-year-olds and 17-year-olds, while a slightly larger difference separated adult females from adult males. The exercises that involved singing familiar songs like "America" and the round were the exercises upon which the greatest discrepancy between male and female scores appeared. On these exercises, as many as 20 or 30 points separated the male from the female percentages. On the other hand, sight-reading exercises, which proved to be difficult for everyone, tended to show the smallest discrepancy between male and female performance.

Color

Whites and Blacks frequently attained approximately the same percentages of success except at age 13, where the results for Blacks were slightly lower than the results for the nation and for Whites.

However, several exercises proved to be especially easy for one group or the other. Nine-year-old, 13-year-old and 17-year-old Blacks attained percentages 7 or 8 points higher than their White counterparts on the exercises that involved repeating a given rhythm and improvising a rhythmic accompaniment for a given piece. Black adults were even with or above the national performance level on almost all the familiar song, rhythm, melody and harmony exercises. On the other hand, Black 9-year-olds and 13-year-olds attained percentages 6 to 10 points lower than the national level on the exercises that involved singing familiar songs, and Blacks of all ages attained percentages lower than their White counterparts on those exercises that involved sight-singing.

Parental Education

The assessment identifies four parental education groups: individuals whose parents have no high school education, those who have at least one parent with some high school education, those who have at least one parent who graduated from high school but failed to continue his formal education and those with a parent who has some post high school education. Results for all four groups are available in the statistical report, but only the results for the two extreme parental education groups are discussed in this volume.

Differences by parental education are greater than those for the variables we have previously discussed. The four groups show a stepwise progression; the post high school group tended to attain percentages of success from 5 to 20 points greater than did the no high school group.

Region

National Assessment identifies four regions of the country, the Northeast, the Southeast, the West and the Central region. Although there are relatively large regional differences in some of the subject areas National Assessment studies, geography does not account for large differences in the ability to perform music.

EXHIBIT 16
National Assessment Geographic Regions

The Central region tended to attain percentages a little higher than the nation as a whole. Differences for the group were a little larger at the 13 and 17-year-old levels, smaller at the 9-year-old and adult levels.

Nine-year-olds and adults in the Northeast tended to attain percentages a point or two above the national level, while 13 and 17-year-olds in the same region tended to be a point or two below the nation.

Individuals from the West and Southeast tended to attain percentages of success a point or two lower than the nation as a whole, but in the West, the tendency decreased with age.

Community Type

Although National Assessment identifies seven community types, we have found that three differ most dramatically from the nation as a whole: rural communities, where the majority of adults work on farms; low metropolitan or inner city areas, where the majority of adults are on welfare; and high metropolitan, largely suburban areas, where the majority of adults are in professional or managerial positions. These community types have shown the greatest differences from the national level in all subject areas. Results for the other community types—small places, medium size cities, big cities and urban fringe areas—are presented in the statistical report.

Individuals in rural communities show only a slight disadvantage when compared to the nation as a whole on the Music performance exercises. The difference is most noticeable at the adult level, where percentages of success were lower than national percentages on the exercises that involve improvising and instrumental performance.

Nine and 13-year-olds in the low metro group attained scores as much as 12 points lower than the nation on the exercises that involved singing familiar songs like "America" and the round; 9-year-olds, 13-year-olds, 17-year-olds and adults in this group attained percentages significantly lower than the nation on every exercise that involved sight-reading, including instrumental sight-reading. Nine-year-olds in the low metro group attained percentages 7 or 8 points higher than the nation on the two exercises that involved tapping out a rhythm.

The high metro group performed consistently well on almost all the exercises at every age level.

CHAPTER 8

CONCLUSION

This chapter is a conclusion in the sense that it attempts to generalize as much as possible about the present level of musical performance in America. But it is not a conclusion in the sense that it evaluates these findings. National Assessment leaves questions such as whether one should be satisfied with the level of musical performance or whether a new thrust is necessary in the field of music education to the reader.

In Chapters 2, 3 and 4 of this report, we discussed the results of exercises that involve elementary musical abilities: singing familiar songs, repeating short musical phrases and improvising a complementary pattern. Of the three activities, one would certainly expect people to indulge most frequently in singing familiar songs, and in fact, many individuals demonstrated some proficiency in this area, even though "America" and the rounds might not have been familiar to everyone.

The percentages of success for repeating unfamiliar patterns and improvising were much lower than for singing familiar songs, except when people were asked to repeat or improvise a rhythmic selection. Rhythm does appear to be the element of music most accessible to the largest number of people.

Chapters 5 and 6 dealt with more specialized musical abilities. Very few individuals were able to accurately sight-read a line of music, either vocally or instrumentally. And although about a quarter of the population claimed to play an instrument, very few were able to give acceptable performances.

But while generalizing, we might also look at the results of other parts of the Music assessment not covered in this report on performance exercises. Few individuals expressed any familiarity with musical notation and terminology; many demonstrated knowledge of the names of musical instruments; few were familiar with the history or literature of music; and many expressed a strong interest in and positive attitude toward music. If there is a pattern emerging from all this, it is that people can enjoy and perform music in a rudimentary way but that they are not familiar with the more technical aspects of music. They can sing, and they like to sing; they hear enough music to recognize the instruments, and they like to listen to music. Only the technical skills and the specialized vocabularies that have been constructed to describe music are lacking from the musical background of most individuals. The majority of Americans do enjoy listening to music and can perform music in a rudimentary way.

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS
A Project of the Education Commission of the States

Reubin O'D. Askew, Governor of Florida, Chairman, Education Commission of the States
Wendell H. Pierce, Executive Director, Education Commission of the States
James A. Hazlett, Administrative Director, National Assessment

Assessment Reports

Science, 1969-70

1	National Results	July 1970
4	Results by sex, region and size of community	April 1971
7	Results by color, parental education, size and type of community; balanced results	May 1973

Citizenship, 1969-70

2	National Results	November 1970
6	Results by sex, region and size of community	July 1971
9	Results by color, parental education, size and type of community	May 1972

Writing, 1969-70

3	National Results	November 1970
5	Results by sex, region and size of community	April 1971
8	Writing Mechanics	February 1972
10	Selected Essays and Letters	November 1972
11	Results by color, parental education, size and type of community, sex and region for objectively scored exercises	May 1973
02-GIY	General Information Yearbook—A description of National Assessment's methodology, with special attention given to Reading and Literature	May 1972

Reading, 1970-71

02-R-01	Understanding Words and Word Relationships	April 1973
02-R-02	Graphic Materials	June 1973
02-R-03	Written Directions	May 1973
02-R-04	Reference Materials	July 1973
02-R-05	Gleaning Significant Facts From Passages	May 1973
02-R-06	Main Ideas and Organization	July 1973
02-R-07	Drawing Inferences	August 1973
02-R-08	Critical Reading	May 1973
02-R-09	Reading Rate and Comprehension	December 1972
02-R-20	Released Exercises	July 1973

Literature, 1970-71

02-L-01	Understanding Imaginative Language	March 1973
02-L-02	Responding to Literature	April 1973
02-L-03	Recognizing Literary Works and Characters	April 1973
02-L-04	A Survey of Reading Habits	May 1973
02-L-20	Released Exercises	April 1973
02-L-00	Summary Data	June 1973

Social Studies, 1971-72

03-SS-01	Political Knowledge and Attitudes	December 1973

Music, 1971-72

03-MU-01	The First National Assessment of Musical Performance	February 1974

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